TENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Agnes Wittmann-Regis

e-mail: pt06@wipo.int

| Applicant's or agent's file reference 049PCT 1318 | FOR FURTHER | ACTION | Sec item 4 below |
|---|--|---|--|
| International application No. PCT/EP2004/011154 | International filing date (day/n 06 October 2004 (06.10.20 | | Priority date (day/month/year) 06 October 2003 (06.10.2003) |
| International Patent Classification (8) See relevant information in Form | | dicated) | |
| Applicant EMS-CHEMIE AG | • | | |
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| International Searching Authority | · · · · · · · · · · · · · · · · · · · | r 1) is issued by th | e International Bureau on behalf of the |
| 2. This REPORT consists of a to | otal of 7 sheets, including this co | over sheet. | |
| | erence to the written opinion of ry report on patentability (Chapt | | Searching Authority should be read as a reference |
| . to the international premitina. | ry report on patentaonity (Chapte | | |
| 3. This report contains indicatio | ns relating to the following item | s: | |
| Box No. 1 | Basis of the report | | |
| Box No. II | Priority | | |
| Box No. III | Non-establishment of opinapplicability | aion with regard to | novelty, inventive step and industrial |
| Box No. IV | Lack of unity of invention | | · |
| Box No. V | Reasoned statement under applicability; citations and | | n regard to novelty, inventive step or industrial porting such statement |
| Box No. VI | Certain documents cited | | |
| Вох №. УП | Certain defects in the inter | national application | on |
| Box No. VΠI | Certain observations on th | e international app | olication |
| | | | |
| 4. The International Bureau will not, except where the applicated date (Rule 44bis .2). | communicate this report to desing makes an express request under | gnated Offices in a ser Article 23(2), be | accordance with Rules 44bis.3(c) and 93bis.1 but efore the expiration of 30 months from the priority |
| • | | | |
| | | Date of issuance 27 July 2006 (2 | • |
| The International Bu | ureau of WIPO | Authorized office | |
| 34, chemin des Colombettes | | | Agnes Wittmann Rogic |

Form PCT/IB/373 (January 2004)

Facsimile No. +41 22 338 82 70

1211 Geneva 20, Switzerland

PATENT COOPERATION TREATY

| PCT WRITTEN ATIONAL SEARCHING AUTHORITY PCT WRITTEN OF INION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Role 45674.1) Date of milling See Form PCT/ISA/210 (sheet 2) Applicant's or agent's file reference O 49PCT 13.18 Bear of milling See Form PCT/ISA/210 (sheet 2) Applicant's or agent's file reference PCT/EP2004/011154 O6.10.2004 PCT/EP2004/011154 O6.10.2004 International pulse Classification (UCT or both national classification and PK'. COSE/T7/00, COSE/T7/10, COSK5/5313, COSK7/00 Applicant EMS—CHEMIE AG I This option contains indications relating to the following theme: Box No. 11 Box No. 12 Box No. 11 Certain do commonic indications and explanations and profit in the international applicability inventive step and industrial applicability applicability citations and explanations applyoring such statement Box No. 11 Box No. 12 Box No. 10 Certain do commonic field Box No. 10 Certain do commonic field Box No. VII Certain defects in the international application Box No. VII Certain defects in the international application Box No. VII Certain documents clear Pox No. VII Certain defects in the international application EN Description of the PEA and the choise PEA has oscilled the lace antional liveaux under Role & Death international profit in the defect of the PEA and the choise PEA has oscilled the lace antional liveaux under Role & Death international profit in the PEA and the choise PEA has oscilled the lace antional liveaux under Role & Death international profit in the little and international forms the principle of the PEA international principle of the EMBLA and the choise PEA has oscilled the explanation of 3 months from the date of misling of Form PCT/ISA/220. Name and misling address of the ISAEP Authorized officer Telephone No. | From the INTERNATIONAL SEARCHING AUTHORITY | | | | |
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| WRITTEN OF INION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43/is 1) Douc of mailing (decisional policy) See Form PCT/ISA/210 (sheet 2) POR PURTIER ACTION See paragaph) Individually (sheet 2) PORT/EP2004/011154 106.10.2004 Description of the considered (decisional policy) PCT/EP2004/011154 106.10.2003 International lifting date (decysmonth/year) PCT/EP2004/011154 Description of the considered (decisional policy) PCT/EP2004/01154 Description of the considered (decisional policy) PCT/EP2006/01154 Description of the considered (decisional policy) PCT/EP2006/01154 Description of the considered (decisional policy) PCT/EP2006/01 | Го: | PCT | | | |
| Applicant's or agent's file reference 0.49PCT 1318 POR FURTHER ACTION See paragraph 2 helow Por parag | | WRITTEN OPINION OF THE | | | |
| Applicant's et agent's file reference O49PCT 1318 See paragraph 2 below | | (PCT Rule 43bis.1) | | | |
| International application No. PCT/EP2004/011154 O6.10.2004 O6.10.2003 Promity date (disylmostal/seatr) O6.10.2003 | | | | | |
| International application No. PCT/EP2004/011154 International Placent Classification (IPC) or both national classification and IPC CO8L77/00, CO8L77/10, CO8K5/5313, CO8K7/00 Applicant EMS—CHEMIE AG I. This opinion contains indications relating to the following items: Box No. 1 Basis of the opinion Box No. 1Priority Box No. 1Priority Box No. 1N Non-establishment of opinion with regard to novelty, inventive step and industrial applicability Box No. 1V Leck of unity of invention Box No. V Reasoned statement under Role 43\(i.i.i.i.i.i.i.i.i.i.i.i.i.i.i.i.i.i. | · · | FOR FURTHER ACTION | | | |
| International Patent Classification (IPC) or both national classification and IPC CO8L77/OO, CO8L77/IO, CO8K5/5313, CO8K7/OO Applicant | | | | | |
| Applicant EMS—CHEMTE AG 1. This opinion contains indications relating to the following items: Box No. 1 Box So. 1 Priority Box No. 1 Certain decument under Rule 43his.1(a)(j) with regard to novelty, inventive step and industrial applicability cliations and explanations supporting such statement Box No. VI Certain documents cited Box No. VII Certain decuments cited Box No. VII Certain observations on the international application Box No. VII Certain observations on the international application Gertain observations on the international preliminary Examinant Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the Oscar IPEA has no notified the International Exercising Authority will not be so considered. If this opinion is as provided above, considered to be a written opinion of the IPEA at the applicant is invited to submit to the IPEA a written reply together, where appropriate with amendments, before the expiration of 3 months from the date of mailing of Form PCT/SA/220 or before the expiration of 22 months from the priority date, which ever expires later. For further details, see notes to Form PCT/ISA/220. Name and mailing address of the ISA/EP Authorized officer | 1 | | | | |
| 1. This opinion contains indications relating to the following items: Box No. 1 Basis of the opinion | C08L77/00, C08L77/10, C08K5/5313 | | | | |
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| Box No. IV | Box No. II Priority | | | | |
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| Box No. VIII Certain observations on the international application 2. FURTHER ACTION If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 60.1bis(b) that written opinions of this International Searching Authority will not be so considered. If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later. For further options, see Form PCT/ISA/220. Name and mailing address of the ISA/EP Authorized officer | Box No. VI Certain documents cited | | | | |
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| | 3. For further details, see notes to Form PCT/ISA/220. | | | | |
| Facsimile No. Telephone No. | Name and mailing address of the ISA/EP | Authorized officer | | | |
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International application No.

PCT/EP2004/011154

| Bo | x No. I | Basis of this opinion |
|------------|----------------|--|
| 1. | With filed. | regard to the language, this opinion has been established on the basis of the international application in the language in which it was unless otherwise indicated under this item. |
| | | This opinion has been established on the basis of a translation from the original language into the following language . which is the language of a translation furnished for the purposes of international search (under |
| | _ | Rule 12.3 and 23.1(b)). |
| 2 . | With | regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed nation, this opinion has been established on the basis of: |
| | a. | type of material |
| | | a sequence listing |
| | | table(s) related to the sequence listing |
| | b. | format of material |
| | | in written format |
| | | in computer readable form |
| | | |
| | c. | time of filing/furnishing |
| | | contained in the international application as filed. |
| | · | filed together with the international application in computer readable form. |
| • | | furnished subsequently to this Authority for the purposes of search. |
| 3. | | In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished. |
| 4. | ۵ کار | litional comments: |
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International application No.
PCT/EP2004/011154

| Box | No. II | Priority | |
|------|----------------|--|--|
| .]. | The fo | following document has not yet been furnished: | |
| | \boxtimes | copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)). | |
| | | translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)). | |
| | Consectibe ass | equently it has not been possible to consider the validity of the priority claim. This opinion has neverthel sumption that the relevant date in the claimed priority date. | ess been established on |
| 2. | (Kule | opinion has been established as if no priority had been claimed due to the fact that the priority claim es 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above ant date. | has been found invalid is considered to be the |
| 3. | Additional o | observations, if necessary: | |
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International application No. PCT/EP2004/011154

| Box | Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | | | |
|--------------|--|--------|------|-----|--|
| 1. | Statement | | | | |
| ! | Novelty (N) | Claims | | YES | |
| | | Claims | 1-10 | NO | |
| | Inventive step (IS) | Claims | | YES | |
| | | Claims | 1-10 | NO | |
| | Industrial applicability (IA) | Claims | 1-10 | YES | |
| | | Claims | | NO | |

Citations and explanations:

Roy No. V

Documents cited:

WO 02/28953 A D1:

EP-A-0 792 912 D2:

D3: EP-A-1 024 167

EP-A-0 345 486 D4:

EP-A-0 592.942 D5:

2. Novelty: PCT Article 33(2)

- 2.1 Claim 2 has been formulated as an independent claim which contains, for example, exclusively polyamides a). The subject matter of such a claim would not be supported by the description and would not be novel over D1-D3. Were claim 2 to be formulated so as to be dependent upon claim 1, the objections cited below would nevertheless have to be considered.
- D1 discloses, in tables 1-2, flame-retarded polyamide moulding compositions consisting of an aliphatic polyamide, a phosphinic acid salt according to the application, glass fibres and melamine polyphosphate as a heat retardant or flame retardant. According to the description of D1, both pure aliphatic polyamides and partly aromatic polyamides or a mixture of these

International application No.

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

polyamides can be used. The compositions of D1 have both good mechanical properties and good flame retardancy. The subject matter of claims 1-10 can thus be described from D1 by a single selection from a list of equivalent alternatives, specifically by selection of the combination of aliphatic and partly aromatic polyamides, and is thus not novel.

- 2.3 a) The subject matter of claims 1-10 differs from D2-D3 in that partly aromatic polyamides are used.
- b) The subject matter of claims 1-10 differs from D4-D5 in that phosphinic acid salt flame retardants are used.

3. Inventive step: PCT Article 33(3)

- 3.1 The subject matter of claims 1-10 is considered to be an obvious selection between the alternatives cited in D1 and is thus not inventive.
- 3.2 a) The examples and comparative examples of the application were carried out with different amounts of the flame retardant and of the total amount of polyamides. Thus, no fair comparison can be carried out that might confirm an inventive step. The objective problem of the application is thus formulated as the provision of further, alternative flame-retarded polyamide compositions.
- b) Starting from D2-D3 as the closest prior art, it is obvious to solve the abovementioned problem by adding partly aromatic polyamides according to D4-D5.

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement

- c) Furthermore, D4-D5 teach that the addition of partly aromatic polyamides in aliphatic polyamide compositions leads to an increase in the mechanical properties, especially elongation at break (D4) and/or flame retardancy (D5).

 Starting from D2-D3, it is thus obvious to improve the mechanical properties of the polyamide compositions by the addition of partly aromatic polyamides according to D4-D5.
- d) The subject matter of claims 1-10 is not inventive.
- 3.3 In order to confirm the inventive step, it would be necessary to point out the crucial feature compared to the documents cited and state whether an unexpected technical effect is associated with it and why this different feature is not discernible from the teaching of the prior art D1-D5.
- 4. The subject matter of claims 1-10 is industrially applicable.